

METHOD FOR MANUFACTURING SPLIT-GATE EEPROM MEMORY CELL AND STRUCTURE FORMED THEREBY

ABSTRACT OF THE DISCLOSURE

5 A method for producing a self-aligned split-gate EEPROM memory cell is provided. The memory cell has a cell size smaller than the traditional spilt-gate structure without sacrificing program disturb immunity. Moreover, the program current of the memory cell is much lower than the stack-gate structure. The method includes steps of:

10 providing a silicone substrate, forming a select gate on the silicone substrate, growing a tunnel oxide layer on exposed surfaces of the silicon substrate, forming a floating gate self-aligned to one side of the select gate, performing an ion implantation to form a source region and a drain region on the silicone substrate, and forming a control gate over the

15 floating gate and the select gate, wherein the control gate, the floating gate and the select gate are insulated from one another.

2025 RELEASE UNDER E.O. 14176